Amendments to the Claims

1. *(Currently Amended)*   Apparatus (20) for determining a frequency offset error, comprising an input (24.1) for receiving a digitally coded frequency demodulated signal (demod_lp2), said frequency demodulated signal (demod_lp2) being processed by

-      digital means (25; 35; 41, 42.1) for performing a correlation in order to determine whether a correlation criterion is fulfilled, and

-      digital means (26; 36; 41, 42.2) for performing a minimum-maximum evaluation in order to determine whether a minimum-maximum criterion are fulfilled, said apparatus (20) further comprising digital processing means (27, 28; 37; 38; 41, 42.3) to calculate the current offset of the frequency demodulated signal (demod_lp2) and to cancel the current offset if both criteria are fulfilled.

2. *(Currently Amended)*   The apparatus (20) of claim 1, wherein the digital means (35) for performing a correlation comprise a correlator (35.1), a peak detector (35.2) and a comparator (35.3).

3. *(Currently Amended)*   The apparatus (20) of claim 1 or 2 1, wherein the digital means (36) for performing a minimum-maximum evaluation comprise two subtractors (36.1, 36.2) and two comparators (36.3, 36.4).

4. *(Currently Amended)*   The apparatus (20) of claim 1, 2 or 3 1, wherein the digital processing means (37; 38) comprise an average detector (37.1), an offset register (37.2), and an offset compensator (38) to subtract the current offset stored in the offset register (37.2) from the frequency demodulated signal (demod_lp2).

5. *(Currently Amended)*   The apparatus (20) of claim 1, wherein the digital means (25; 35) for performing
a correlation and the digital means (26; 36) for performing a minimum-   maximum
evaluation both provide signals (ok_crit1; ok_crit2A, ok_crit2B) to the digital processing means (27, 28; 37; 38) in order to cause the digital processing means (27, 28; 37; 38) to cancel the current offset.

6. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, comprising two comparators ~~(17)~~ serving as limiters followed by building blocks ~~(18, 19, 21, 22, 23)~~ arranged to extract said frequency demodulated signal ~~(demod_lp2)~~ from a frequency shift keyed modulated signal.

7. *(Currently Amended)* The apparatus ~~(20)~~ of claim ~~1 or 2,~~ 1 wherein the digital means ~~(25; 35)~~ for performing a correlation correlate the frequency demodulated signal ~~(demod_lp2)~~ with a time-limited sine wave signal, and determine whether the result of this correlation exceeds a certain threshold ~~(threshold_1)~~.

8. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(25; 35)~~ for performing a correlation provide an output signal ~~(ok_crit1)~~ indicating that the a criterion for a known sequence is fulfilled.

9. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(26; 36)~~ for performing a minimum-maximum evaluation determine whether expected peaks of positive and negative half-waves of the frequency demodulated signal ~~(demod_lp2)~~ have predefined distances ~~(threshold_2)~~.

10. *(Currently Amended)* The apparatus ~~(20)~~ of claim 1, wherein the digital means ~~(26; 36)~~ for performing a minimum-maximum evaluation calculate two subtractions in order to compare four received symbols with corresponding amplitudes.

11. *(Currently Amended)* The apparatus ~~(20)~~ according to ~~one of the preceding claims~~ claim 1, wherein the frequency demodulated signal ~~(demod_lp2)~~ is a digital coded signal.

12. *(Currently Amended)* The apparatus ~~(20)~~ of claim 4, wherein the offset compensator ~~(38)~~ is employed in order to continuously subtract a value stored in the offset register ~~(37.2)~~ from the frequency demodulated signal ~~(demod_lp2)~~.

13. *(Currently Amended)* The apparatus ~~(20)~~ of claim 4, wherein the average detector ~~(37.1)~~ is a sliding average detector that continuously generates a mean value of the frequency demodulated signal ~~(demod_lp2)~~.

14. *(Currently Amended)* Receiver ~~(10)~~ comprising an apparatus according to ~~one or more of the preceding claims~~claim 1.

15. *(Currently Amended)* The receiver ~~(10)~~ of claim 14, comprising an analog front-end ~~(10, 14, 15)~~ and a digital back-end ~~(16)~~, said apparatus ~~(20)~~ for determining a frequency offset error being part of said digital back-end ~~(16)~~.

16. *(Currently Amended)* The receiver ~~(10)~~ of claim ~~14 or 15~~14 being designed to receive and process FSK or GFSK modulated antenna signals.